GCCS/DII COE System Integration Support

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GCCS VERSION DESCRIPTION DOCUMENT

for Version 2.2

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Preface

The following conventions are used in this document:

Bold	Used for information that is typed, pressed, or selected in executables and instructions. For example, select **connect to host**.
Italics	Used for file names, directories, scripts, commands, user IDs, document names, and Bibliography references; and any unusual computerese the first time it is used in text.
Underline	Used for emphasis.
Arrows <>	Used to identify keys on the keyboard. For example <Return>.
"Quotation Marks"	Used to identify informal, computer-generated queries and reports, coined names, and to clarify a term when it appears for the first time. For example "Data-Generation Report."
`Courier Font`	Used to denote anything as it appears on the screen or command lines. For example `tar xvf dev/rmt/3mm`
Capitalization	Used to identify keys, screen icons, screen buttons, field, and menu names.

SECTION 1. SCOPE

1.1 Identification

This revision of the Version Description Document (VDD) describes the Global Command and Control System (GCCS) Version 2.2 (V2.2). GCCS V2.2 builds upon the infrastructure built in V2.0. At its simplest, the GCCS architecture is a suite of servers made up of at least one Oracle Database Server and two application servers. The Oracle Database Server, usually a Sun SPARCserver 1000 or Sun SPARCcenter 2000, serves as the repository for all Oracle databases. At most sites, all user accounts and user data will also be stored on the Oracle Database Server, as will other data typically stored on file servers. Certain GCCS V2.1 applications, such as Dynamic Analysis and Replanning Tool (DART), Force Augmentation Planning and Execution System (FAPES), and Scheduling and Movement (S&M) (see Section 3.2 for application descriptions), will still reside on the Oracle Database Server, but the majority of the GCCS V2.2 applications will reside on the application servers, which are Sun workstations. The application servers will also contain certain commercial off-the-shelf (COTS) and Government off-the-shelf (GOTS) services being used by all GCCS platforms.

The flexibility and complexity of GCCS necessitates that the site installation be carefully planned before GCCS software is installed on any platform. The Executive Manager (EM) is the Common Operating Environment (COE)-defined interface through which all users will interact with GCCS. The EM is installed on all GCCS platforms via the GCCS COE kernel, which represents a minimal, common subset of the runtime environment. At a GCCS site, one and only one of the application servers must be designated as the EM server for that site. Sybase, used by the GCCS Command Center applications, also requires that an application server be provided. A select number of GCCS sites will also be receiving an Automated Message Handling System (AMHS), which requires that a dedicated Sun SPARCstation 20 server be identified.

1.2 System Overview

GCCS V2.2 consists of a basic client/server data automation architecture running over the Secret Internet Protocol Router Network (SIPRNET) using the Transmission Control Protocol/Internet Protocol (TCP/IP) suite. Most of the applications and related databases listed above are resident on Sun SPARC platforms (Sun SPARCserver 1000 or Sun SPARCcenter 2000). GCCS Status of Resources and Training System (GSORTS) (see Section 3.2 for application descriptions) resides on the Sun SPARCstation 10/20. The Joint Maritime Command Information System (JMCIS) software also now resides on the Sun SPARCstation 10/20. The Logistics Sustainment Analysis and Feasibility Estimator (LOGSAFE) application uses the Worldwide Military Command and Control System (WWMCCS) Information System (WIS) workstation (WWS). The Joint Flow and Analysis System for Transportation (JFAST) application utilizes a high-end IBM DOS compatible Personal Computer (PC). Other PCS with connection to GCCS Local Area Networks (LANs) can access mission applications by using the commercially available Windows-based X-Terminal software PC-Xware. (See Section 4 for hardware specifications.)

1.3 Documentation Overview

This VDD identifies and describes the components of GCCS V2.2. It describes the hardware, software, and documentation baseline requirements for the system. This document combines the requirements for the Software Release Bulletin (SRB), as required by the *Documentation Standards and Publications Style Manual*, PM 1-91; *Implementation Procedures*; *Software Release Bulletin;* and the *Version Description Document*, as required by *Defense System Software Development Military Standard*, DoD-STD-2167A, and *Data Item Description, Version Description Document*, DI-MCCR-80013A. It is organized into four sections. Section 1 describes the scope of the document. Section 2 identifies the referenced documents. Section 3 is a description of the hardware, software, and documentation that comprise this version of GCCS. Section 4 provides notes, including hardware specifications and a list of acronyms.

SECTION 2. REFERENCED DOCUMENTS

2.1 Government Standards

- Documentation Standards and Publications Style Manual, PM 1-91
- Military Standard Defense System Software Development, DoD-STD-2167A
- Data Item Description, Version Description Document, DI-MCCR-80013A.

2.2 Non-Government Standards

There are no applicable non-Government standards at this time.

SECTION 3. VERSION DESCRIPTION

3.1 Inventory of Materials Released

The inventory of materials released for GCCS V2.2 can be found in the *GCCS Implementation Procedures, Software Release Bulletins,* and *System Administration Manual*. A listing of all documentation for this release is contained in the *System Administration Manual*.

3.2 Inventory of System Contents

The GCCS V2.2 software configuration includes products described in this section.

3.2.1 Desktop Functions. A number of EM functions are not invoked via a menu but are executed within the main launch window. The launching of any of these functions can be performed by double clicking the left mouse button on the corresponding icon. These EM functions identified by icon within the main launch window include:

- **AUDIT LOG.** The Audit Log function invokes the Security Audit Log window that provides the Security Administrator with access to audit information, including Date-Time-Group (DTG), Workstation, User, Granularity Level, Application (APP), and Audit Event. The Security Administrator has the option to print, archive, or purge entries in the log. This function is terminated by clicking the left mouse button on the **Exit** command button at the bottom right of the main Security Audit Log window.

- **CHRONLOG.** The Chronological Log (CHRONLOG) function is actually an extension of PLOG that provides for multiple positions within a project to be incorporated into one chronological listing for that project. With appropriate privileges, the user can also generate entries directly on the CHRONLOG. This function can be exited by clicking on the **Exit** option under the **File** menu within the main CHRONLOG window.

- **CONTROL.** The System Controller (CONTROL) function enables the System Administrator at a GCCS workstation to manage processes and execute Unix commands to any other GCCS workstation on the LAN. This function can be exited by clicking on the **Exit** option under the **File** menu within the main System Controller window.

- **DB SLCT.** The Select Oracle database (DB SLCT) function provides a Select Oracle Database pop-up window that notifies the Database Administrator (DBA) of the current database, and displays a list of database locations/names and corresponding host IP addresses. The DBA is also prompted to: "Enter a new DB Location/Name [**by #**] or [**q to quit**]." New database locations/names that can be selected by the DBA include European Command (EUCOM), Pacific Command (PACOM), Transportation Command (TRANSCOM), etc. The DB SLCT function can be terminated by entering a **q** followed by <**Return**> or by selecting the **Close** option under the Window Menu Button located on the far left of the DB SLCT main window title bar.

- **DICTION.** The Data Dictionary (DICTION) function allows users to analyze the underlying structure of a selected database. In addition, it allows users to obtain DBA entered definitions of each of the database fields associated with any table in the selected database. The DICTION function also allows users to access database rules, views, tables, defaults, triggers, and procedures for the selected database. This function can be exited by clicking on the **Exit** option under the **File** menu within the main Data Dictionary window.

- **DISPLAY.** The Custom Display (DISPLAY) is an end-user function that provides the capability to select and display any template that has been previously created and saved in a format suitable for briefings. Templates are defined as briefing charts created by the Template Editor (TEDIT) and/or map charts created via the Map Overlay Editor (MOE). This function can be exited by clicking on the **Exit** option under the **File** menu within the main Custom Display window.

- **MM.** The Message Manager (MM) function allows users to create, coordinate, save, send, respond to, obtain status of, and release messages. In addition, it permits users to create and save attachments and distribution lists. This function can be exited by clicking on the **Exit** option under the **File** menu within the main MM window.

- **MOE.** The Map Overlay Editor (MOE) function supports the creation and modification of graphical map overlays. The overlays consist of annotation objects and icons. Annotation objects are simple geometric drawings such as lines, rectangles, polygons, circles, points, and text that is tied to a specific geographical map location. Icons are complex symbols representing military units and are related to actual military units in the database. MOE has the capability to display detailed information for any icon. In addition to overlays, MOE has the capability to generate and save composites which are comprised of a collection of overlays saved as a single entity. This function can be exited by clicking on the **Exit** option under the **File** menu within the main MOE window.

- **MONITOR.** The System Monitor (Monitor) function provides the capability for the System Administrator or GCCS operator to monitor the system status by displaying the processor status, logged-in user information, error log, and by sending and receiving system alarms. This function can be exited by clicking on the **Exit** option under the **File** menu within the main System Monitor window.

- **MTF.** The Message Text Format (MTF) Editor function allows generation of fully formatted United States Message Text Format (USMTF) messages by providing message templates to aid in message creation. A message can be prepended with either an ACP126, DD173, or JANAP128 header. When invoked, the user can construct the desired USMTF message by selecting from among the pre-defined USMTF templates. When a given template is selected, a list of pre-defined “sets” are displayed, which comprise the particular USMTF message. When each set is “expanded,” the list of fields pertaining to the particular set is displayed and the user is prompted to enter the appropriate data. This function can be exited by clicking on the **Exit** option under the **File** menu within the main MTF Edit window.

- **PHONE.** The Telephone List (PHONE) function allows the creation of, access to, and maintenance of telephone lists. Each entry in these lists contains four telephone numbers. As many telephone lists as required can be generated to support various working groups, etc. This function can be exited by clicking on the **Exit** option under the **File** menu within the main Telephone List window.

- **PLOG.** The Position Log (PLOG) function is an automated journal that allows for each position to capture important events and to document any appropriate action taken. This log can also be used to pass information to other operators at that position. Separate positions within each project may nominate entries for inclusion in the CHRONLOG for that project. This function can be exited by clicking on the **Exit** option under the **File** menu within the main PLOG window.

- **PROFILES.** The Profile Manager (PROFILES) function allows the System Administrator to create, edit, or delete user profiles that contain the positions, directorates, divisions, branches, and sections of an individual being profiled. This function can be exited by clicking on the **Exit** option under the **File** menu within the main Profile Manager window.

- **RREM.** The Run Remote (RREM) function allows users to access an application on a remote host. When invoked, the Run Remote pop-up window appears, prompting the user to: Enter the remote host name using the format, "host.dmain." This function can be exited by selecting the **Close** option under the Window Menu Button located on the far left of the RREM main window title bar.

- **SECURITY.** The Security Manager (SECURITY) function enables the Security Administrator to manage the database of users, including adding users, deleting users, and editing user information. This function can be exited by clicking on the **Exit** option under the **File** menu within the main Security Manager window.

- **TEDIT.** The Template Editor (TEDIT) function provides the capability to create, edit, and delete various templates used in the preparation of briefing charts. In addition, TEDIT has an interface to the GCCS database and computational support. This function can be exited by clicking on the **Exit** option under the **File** menu within the main TEDIT window.

- **USER ROLES.** The User Roles function invokes the scrollable User Roles window, which allows the System Administrator to add, delete, edit, copy, and print user roles by actual role, account, group, and classification. This function is terminated by clicking the left mouse button on the **Exit** command button at the bottom right of the main **User Roles** window.

- **XTERM.** The XTERM function provides an X-Terminal window. The XTERM window can be exited by either typing **Exit** at the prompt followed by a <**Return**> or by selecting the **Close** option under the Window **Menu Button** located on the far left of the XTERM window title bar.

3.2.2 Databases Utilized Within GCCS

3.2.2.1 Oracle Relational Database Management System. The Oracle Relational Database Management System (RDBMS) is the main repository for GCCS applications data.

3.2.2.2 Sybase RDBMS. The Sybase RDBMS is included to support Command Center Applications (CCAPPS), AMHS, and anticipated future additions to the system.

3.2.2.3 Mini-SQL (Minerva). Mini-SQL (Minerva) is used by the desktop to facilitate user logins.

3.2.3 GCCS Applications

3.2.3.1 Ad Hoc Query (AHQ). AHQ is a part of the S&M subsystem within Joint Operations Planning and Execution System (JOPES). AHQ provides the transportation and operation planning end-users with the capability to query S&M on the S&M requirements for a given Operational Plan (OPLAN). The capability provides a full-featured tool for constructing queries and reports.

3.2.3.2 Ad Hoc Query Character (AHQCHAR). AHQCHAR is the client/server replacement for JOPES Subsystem E. This character-based segment of S&M is called by a remote machine, such as a remote PC or SPARCstation 5, for execution over a small bandwidth serial or satellite line.

3.2.3.3 Airfields (AIRFIELD). The Airfields database is a flat file currently resident on the WWMCCS Honeywell mainframe. All data is supplied by the Defense Mapping Agency Aerospace Center (DMAAC) and is updated monthly. Reverse engineering was used to rehost the database using the RDBMS in the Oracle Standard Query Language (SQL). The system runs under the Solaris 2.3 environment. A COTS Graphical User Interface (GUI), "Screen Machine," is utilized at the front end. The primary operational sites include the WWMCCS community and the Joint Staff (JS).

3.2.3.4 AirFields Remote (AFSC). The AirFields application provides information on airfields worldwide. This segment contains a script to launch the AirFields application in a Remote Shell (RSH) running on the application server.

3.2.3.5 Automated Message Handling System (AMHS). AMHS provides a user-friendly means to send and receive messages via the Automated Digital Network (AUTODIN). It provides connectivity to and interoperability with other Government agencies, allies, tactical users, defense contractors, and other approved agencies external to the Defense Message System (DMS) community. It also provides guaranteed delivery to the intended recipients, and maintains writer-to-reader accountability. AMHS has the Message Manager and Message Text Format Editor components.

3.2.3.6 APPLIXware Office Automation Software (APPLIX). APPLIXware Office Automation provides word processor, spreadsheet, and graphics functionality. APPLIXware is selected by choosing **Tools** from the top GCCS menu bar, then **Words**, **Graphics**, or **Spreadsheets** from the menu.

3.2.3.7 Automated Security Enhancement Tool (ASET). ASET provides the security manager with a configurable tool that reports the security configuration of the work station where it is executed. This tool replaces the ASET functions residing under */usr* on one serving host.

3.2.3.8 Air Tasking Order (ATO) Review Capability. The GCCS ATO Review Capability (GARC) provides GCCS with the ability to receive and view USMTF ATO Confirmation (ATOCONF) messages disseminated by the Contingency Theater Automated Planning System (CTAPS) V5.1. Messages are received through e-mail and then automatically stored in the GCCS file system. Through a MOTIF-based Human Machine Interface (HMI), users can select from the received ATOs and view the contents with a text editor. Users can also specify a filtering criteria before viewing the information.

3.2.3.9 Audit (AUDIT). The AUDIT segment replaces the Basic Security Module (BSM) segment. The BSM segment installs audit configuration and management files that are used by the auditing features provided in the Unix operating system. This auditing feature allows the superuser to maintain audit trail information of user activities.

3.2.3.10 Coliseum (COLSM). This is a client/server database application designed to support the national intelligence community for the registration, validation, tracking, and management of crisis and non-crisis intelligence requirements. It was developed with COTS technology to provide a GUI for interaction with the database host at Defense Intelligence Agency (DIA). Control functions and relational features are built-in to provide automatic checks and data element field completion. Specific functional requirements and data element descriptions leading to product delivery are listed in the COLISEUM Requirements Definition Document (RDD).

3.2.3.11 Command Center Applications (CCAPPS). CCAPPS is a suite of headquarters command center applications that is tightly integrated with the GCCS EM. It consists of a set of integrated applications providing the following operational capabilities: Staff Journal, Information Management, End User Generated Database Applications, Suspense/Tasking, Messaging, and a Folder System that underlies all of the CCAPPS.

3.2.3.12 Dynamic Analysis and Replanning Tool (DART). DART is an information management system that enables military planners/executors to retrieve, edit, and analyze transactions from Time-Phased Force and Deployment Data (TPFDD) files.

3.2.3.13 Defense Software Repository System (DSRS). The DSRS User Tool uses the DSRS client/server Sun/Unix-based application to provide registered System Administrators (sysadmin) a mechanism to download GCCS software segments in preparation for installation using the Remote Installer and SAIinstaller. Developed to make segment distribution and reuse easy, the DSRS User Tool is a user-friendly GUI designed to search, browse, analyze, and download user-specified files for selected segment(s).

3.2.3.14 Enhanced Linked Virtual Information System (ELVIS). ELVIS uses Hyper-Text Transfer Protocol (HTTP) to service client requests for GCCS/JMCIS Chart images, as well as links into Status of Forces data, where available. A CERN HTTPD process is installed to act as the server for this data; it can live on a workstation running other HTTP servers without conflict.

ELVIS provides the capability to view JMCIS displays from any computer SIPRNET device with a World Wide Web (WWW) browser. V1.3.01 incorporates corrected file ownership settings into the Postinstall script to ensure that owner JMCIS is set on almost all files and subdirectories.

ELVIS provides the capability to view JMCIS displays from any computer connected to the SIPRNET. V1.3.02 incorporates corrected community scripts.

3.2.3.15 Executive Manager (EM). The EM provides GCCS users with a single menu to select a network printer. The selected printer and associated information (type, description, etc.) are available to GCCS applications to use in forming the Unix print command. The key to using the EM print capability is the GCCS printer table. The printer table will contain an entry for all printers that have been installed using the GCCS Printer Administration tool. These entries make up the selection list presented to the user in the "Select Printer" option of the EM.

3.2.3.16 Empire (EMPIRE). EMPIRE, along with the other network monitoring agents, is designed to collect statistical data on the health and performance of GCCS networks and systems. The data collected will be analyzed and reported back to the originating sites to assist in troubleshooting and optimizing their local GCCS assets. Centralized data collection will allow the users to spot trends and patterns that are common across all GCCS sites and will serve as a conduit for the distribution of feedback and lessons learned at each site.

3.2.3.17 External System Interface (ESI). The ESI application comprises the Transportation Component Command (TCC) ESI for the migration of JOPES validation functionality to GCCS. The ESI provides an interface between JOPES and the software systems of the TCC for the United States Transportation Command (USTRANSCOM). This software provides users with the capability to identify and manage the force requirements that should be scheduled for transportation. Depending on the characteristics of the users' access userid, ESI provides specific functional access for users in the Commander-in-Chief (CINC) Site Validator, USTRANSCOM, Air Mobility Command (AMC), and Military Sealift Command (MSC) user classes.

3.2.3.18 Evacuation System (EVAC). EVAC is a JS and State Department automated computer database and retrieval system used to identify the number of potential evacuees located at each reporting foreign service post (e.g., embassy, consulate general, consulate, etc.) worldwide. EVAC gathers data from State Department formatted messages sent to the National Military Command Center (NMCC) and allows interested users to query the database and answer questions concerning requirements for planning an evacuation.

3.2.3.19 Force Augmentation Planning and Execution System (FAPES). FAPES assists planners with mobilization planning, analysis, and execution. It identifies manpower resources and provides status and progress of mobilization, apportionment decision aids, and OPLAN visibility of mobilization.

3.2.3.20 Freeware Implementation of Unix Talk. Unix Talk (CHATTER) allows a GCCS user to communicate with another GCCS user in real-time. It allows connection between two users at a time, but both users must be using the GCCS desktop.

3.2.3.21 Fuel Resource and Allocation System (FRAS). FRAS V1.0 provides the interface between the JOPES database and a standalone PC running the actual analysis software. The application queries the JOPES database; collects and processes information to generate flat files required by the PC-based system; and distributes them to the CINCs that require them.

3.2.3.22 Gain Momentum. Gain Momentum is not included in GCCS V2.1 or later releases.

3.2.3.23 GCCS Air Tasking Order (ATO) Review Capability (GARC). GARC provides GCCS with the ability to receive and view USMTF ATO Confirmation (ATOCONF) messages disseminated by the CTAPS V5.1. Messages are received through e-mail and then automatically stored in the GCCS file system.

3.2.3.24 GCCS Reconnaissance Information System (GRIS). GRIS provides automated support planning, scheduling reporting, and monitoring reconnaissance activities under the Sensitive Reconnaissance Operations (SRO) program. GRIS maintains a near real-time status of all SRO missions and provides immediate on-line retrieval of mission, track, and message data. To accomplish this, GRIS provides automatic real-time capture and processing of Reconnaissance Information Processing System (RIPS) format messages, and maintains a mission and track database containing schedule and resultant information. GRIS is used to generate and release the outgoing SRO messages to the AUTODIN and provides on-line query and report capabilities detailing message, mission status, and scheduling information. It is also used to maintain current Track Dictionary data and to generate the master copy of each new dictionary or set of change pages.

3.2.3.25 GCCS Status of Resources and Training System (GSORTS). GSORTS provides identification, location, deployment status, availability, and resource information on U.S. military units. It has the ability to use Defense Mapping Agency (DMA) maps (raster and vector). GSORTS has a companion program, the SORTS Interactive Query System (SIQS) icon. This program is a menu-driven/user-friendly front-end that allows rapid construction and execution of custom SQL queries of the underlying Oracle database. This program also enables the creation of custom reports of SORTS data. It provides the support to peacetime monitoring; crisis reporting; and deliberate, operational planning by staff officers.

3.2.3.26 Global Transportation Network (GTN). GTN provides a communications interface based on the HYPERchannel NETwork EXecutive (NETEX) application program. GTN is a transportation system and a Command and Control (C^2) system that provides the JS and CINCs with transportation information. It provides a transaction-oriented, event-driven, data transfer capability. It focuses on providing USTRANSCOM with the information necessary to carry out its mission of global transportation management.

3.2.3.27 HyperText Transfer Protocol Daemon (HTTPD). The NCSA HTTPD improves performance and corrects several security problems and flaws in the *cgi* scripts. The following directives have been added to the configuration files: Startserver, Maxserver, ErrorDocument, Agentlog, RefererLog, and RefererIgnore.

3.2.3.28 Individual Manpower Requirements and Availability System (IMRAS). IMRAS is a personnel planning system that assists in the individual manpower mobilization planning and execution needed to meet operational requirements of the Joint community within each of the JOPES mission areas.

During deliberate planning and crisis situations, it will provide support for mobilization, deployment, employment, and sustainment activities. In addition, IMRAS will support development of the personnel estimate of the given situation and personnel appendices to Joint Strategic Planning System (JSPS) documents.

3.2.3.29 Information Management Subsystem/Reference File Manager (IMS/RFM). IMS is a Technology Insertion Project (TIP) software package that has been incorporated into GCCS. IMS is a tool for centralized TPFDD management among the GCCS user applications and the server. The RFM is a TIP software package that has been incorporated into GCCS. The RFM is similar to IMS. It is used for downloading standard reference files from the mainframe to the GCCS server.

3.2.3.30 Imagery Product Archive (IPA). The purpose of the IPA program is to establish standard servers in all theaters that can obtain and archive imagery files and/or imagery products from multiple sources. These files and products are then made available to imagery customers throughout the world. The mission is expanding to include the storage of maps and video files as well. IPA servers are currently on-line in several theaters. These servers can be accessed from clients anywhere in the Wide Area Network (WAN) using this segment. The IPA program provides both the server and client software necessary to implement the IPA mission. The Joint Deployable Intelligence Support System (JDISS) Program Management Office (PMO), which is a "clearing house" of integrated intelligence applications, currently packages the IPA Client to operate successfully in joint systems that have an intelligence mission. To date this includes JDISS itself, JMCIS, and GCCS.

3.2.3.31 Information Resource Manager (IRM). The IRM is a generalized Joint Deployment System (JDS) database manipulation and update subsystem to support the Joint Chiefs of Staff (JCS), Joint Deployment Community (JDC) planners, operators, and decision makers with the controlled ability to manipulate the data for OPLAN, multiple OPLANs, and Rapid Deployment Planning (RDP).

3.2.3.32 Internet News. Unlike IRC (see Subsection 3.2.3.32), a number of News Servers are available, GCCS provides Internet News. "News" is designed as a network of servers to which clients attach. This program is written in C, and uses sockets for IPC; its port is 119. The client software package being provided is XRN (NewsGroups-X-windows Read News); it is also written in C. These products allow a news reader to upload and download files, generally in text format. News is interactive and persistent. Files are saved and may be archived. Users who are not connected to a conference when a file is uploaded may read it at a later date.

3.2.3.33 Internet Relay Chatter (IRC) Common Application. IRC is implemented as a network of IRC servers. Users interact with IRC via IRC clients. A user invokes an IRC client and directs the client to connect to a server. Once connected, the client indicates to the server which channels the client has joined. The server transmits all messages on those channels to the client. Further, when the client sends a message to the server, the server forwards this message to all other clients on the message's channel and to all other servers that have clients on the channel.

The IRC server is "ircd." It is a Unix daemon, which runs continuously on a server platform. Each server location will have at least one IRC server running at all times. The IRC server is written in C, and uses

sockets for interprocess communication; the default is port 6667. IRC is very interactive and non-persistent in that messages are not saved. When a user types something onto the screen, it is quickly transmitted to all other users currently connected to that conference. However, when a message is sent while a user is not connected, that user will not be able to see that message.

3.2.3.34 Joint Deployable Intelligence Support System (JDISS). JDISS provides connectivity and interoperability with the intelligence systems required to support forces in garrison and deployed in peacetime, crisis, and wartime. It provides the Joint Intelligence Center (JIC), Joint Task Forces (JTF), and operational commanders with on-site automation support and the connectivity necessary to execute the intelligence mission. It is the technical baseline for the DoD Intelligence Information System (DoDIIS) client/server environment.

3.2.3.35 Joint Engineer Planning and Execution System (JEPES). JEPES is an automated tool for use by the JS, the CINCs of the unified and specified commands, and the Service Civil Engineering planners. The planner uses JEPES to develop the Civil Engineering Support Plan (CESP) annex to an OPLAN. It identifies facilities required to support deploying forces, to apply existing assets to fulfill these requirements, and to then assign engineering resources to construct remaining unsatisfied requirements. JEPES generates a series of reports and graphics to show requirements, and provides data for Logistics Sustainability Analysis (LSA) and LOGSAFE systems.

3.2.3.36 Joint Flow and Analysis System for Transportation (JFAST). JFAST is a simulation/modeling tool designed to provide rapid analysis of transportation alternatives based on feasibility. It uses TPFDD file information for analysis and reporting. By using a GUI on a 486 PC client-to-server database, JFAST allows users to specify conditions for meeting a transportation profile.

3.2.3.37 Joint Maritime Command Information System (JMCIS). JMCIS provides a common tactical picture and also has the ability to use DMA raster and vector maps. It provides the CINCs and Commanders Joint Task Forces (CJTFs) with a single, integrated Command, Control, Communications, and Intelligence (C^3I) system. It receives, processes, displays, maintains, and assesses the unit characteristics, employment scheduling, material condition, combat readiness, warfighting capabilities, positional information, and disposition of hostile and friendly forces. JMCIS applications display ground and air tracks. The Mapping, Charting, Geodesy, and Imagery Joint Mapping ToolKit is a JMCIS utility that provides specialized mapping functions.

3.2.3.38 JOPES Naviagtion (JNAV). JNAV is a graphical system-level navigation application that allows the user to easily start JOPES applications and switch between them. An icon on the GCCS desktop is used to start the JNAV application. Currently, the following JOPES applications require the JNAV segment: RDA, PDR, TCCESI, and LOGSAFE.

3.2.3.39 JOPES Ad Hoc Query (AHQ). AHQ is a part of the S&M subsystem within JOPES. AHQ allows transportation and operation planning end-users the capability to query S&M on the scheduling and moving of requirements for a given OPLAN. This capability provides a full-featured tool for construction queries and reports. It eliminates the need-to-know complex query languages, the need to memorize database schema, and the need-to-know the location of data elements required for reports.

3.2.3.40 JOPES External System Interface (ESI). ESI provides the capability to identify source requirements for validation and scheduling of movement assets. This capability includes editing source requirements, monitoring changes, and passing movement priorities to USTRANSCOM or other designated commands. This functionality allows for setting data elements that govern the business rules for the protection of transportation-related data within the force requirements database once an OPLAN is placed in a locked status.

3.2.3.41 JOPES Pre-Defined Reports (PDRPT). The JOPES PDRPT required for migration to GCCS are delivered in six sets. The reports access the S&M GCCS Core Database via the JOPES navigation segment and are dependent on that segment. The PDR product includes:

- Client application software segment for user interface and report generation
- Database server segment used to create tables, views, and roles required to operate JOPES reports
- Database server segment for Gain Momentum Net Daemon needed to access the JOPES Core Database from user interface.

3.2.3.42 JOPES System Level Navigation. JOPES consists of a number of applications that are traditionally divided into three categories: Requirements Planning and Execution, Deliberate Planning tools, and Functional Management. The application described manifests itself as an icon on the desktop. Opening the JOPES icon brings up a window pre-loaded with a form providing instructions to launch the application. The JNAV Client Segment consists solely of HyperText Markup Language (HTML) documents and Unix scripts.

3.2.3.43 Legato (LGTO) Networker. The Legato Networker segment is a COTS product. It provides an open solution to software backups, including database backups. This software package is designed for installation on application/database servers and clients that require backup to the tape device controlled by the tape server. A separate segment, Legato Networker Server, is designed to run on tape servers only and provides the backup facility for this client segment.

3.2.3.44 Link 11 (LINK11). This version of Link-11/Tadil-A satisfies multiple platform requirements using an implementation-independent approach. Implementations currently supported include: FFG7 for Coast Guard, ATACC/TAOM for Marine Corps, Submarine for CCS Mk2, and TSC.

3.2.3.45 Logistics Sustainment Analysis and Feasibility Estimator (LOGSAFE). LOGSAFE is a logistic sustainment modeling application that assists logistic planners in determining sustainment requirements of a proposed OPLAN for deliberate execution or crisis planning. It provides deliberate planning, logistics sustainment analysis, feasibility estimation, resupply requirements generation, and appraisal of contingency plans, and produces detailed Non-Unit-Related Cargo (NURC) records containing transportation requirements data.

LOGSAFE produces channelized NURC records that assist transportation planners scheduling inter-theater movement of non-unit cargo for execution planning in crisis action situations and uses data from the JOPES TPFDD database and the following reference files:

- Logistics Factors File (LFF)
- Type Unit Characteristic File (TUCHA)
- Specified Geographic Location File (GEOFILE)
- Country Code/Long Name File (CNTRY)
- Ports of Support File (POSF).

TPFDD data is extracted from the GCCS database, which is stored on the SPARCserver 1000. LOGSAFE can access this data by using IMS.

3.2.3.46 Medical Planning and Execution System (MEPES). MEPES provides the Joint Planning Community with a consistent means of predicting and evaluating medical requirements in support of OPLAN development. MEPES is an integrated kit of tools to aid in deliberate, program, and crisis action planning; to monitor status of medical support during execution of joint operations; to assess the mobilization of medical manpower; to evaluate medical support plans; and to support medical planner/operator participation in joint exercises. MEPES will replace the JOPES Medical Planning Module (MPM).

3.2.3.47 Mail Services (MSVCS). MSVCS provides pop3 access to users' e-mail accounts. This allows users on networked PCS and workstations that do not mount */var/mail* to read their e-mail.

3.2.3.48 Mosaic. The Mosaic utility is a browser that allows users to review and download documents over a WAN. It will be used over the SIPRNET to access on-line GCCS documentation.

3.2.3.49 Netmetrix (NETM). The HP NetMetrix product consists of two parts:

- The remote monitoring Power Agent that implements all nine groups of the RMON MIB (RFC 1271) plus extensions.

- The application toolbox that implements the graphical toolset consisting of the network load monitor, the network file system (NFS) monitor, the protocol analyzer, the traffic generator, and the inter-network monitor.

Together, these packages assist in monitoring the performance of the network segments (ethernet, FDDI, token ring, etc), and troubleshooting network problems.

3.2.3.50 Netscape. Netscape, along with Netsite (see Subsection 3.2.3.51), provides replacement functionality for WIN Teleconferencing as a client/server product capable of communicating over TCP/IP protocols. Netscape is a COTS package that will provide the capability to explore the WWW, multimedia, and Internet text-based mediums. The Internet's Usenet newsgroups, e-mail, and alternative transport protocols offer diverse and robust communicative elements. Netscape will provide features to explore the Internet in numerous domains without hindrance from the complexity of distributed networks.

3.2.3.51 Netsite. A commercial product which, like Netscape, replaces WIN Teleconferencing functionality. It is the server segment of a client/server product communicating using TCP/IP protocols. Netscape and Netsite were acquired, modified, and configured from public domain sources.

3.2.3.52 NewsGroups (NEWSMKGRP). NewsGroups is designed as a network of servers to which clients attach to obtain the latest news-related information. The COTS software package provided in GCCS is called NewsGroups-XRN. NewsGroups provides text-based, non-persistent, non-real-time news access where multiple NewsGroups can exist simultaneously on the Internet. This product allows users to select a NewsGroup, select a specific article, follow a given NewsGroup thread, and upload and download files in text format.

3.2.3.53 Non-Unit Personnel Generator (NPG). NPG allows the planner to generate Personnel Increment Numbers (PINs) through the construction of TPFDD records. The planner will incorporate the PINs into OPLAN movement requirements as the basis for lift analysis and allocations.

3.2.3.54 Oracle Application. Oracle Application Server Tools (Oracle) includes the reduction in segment size and rolls-up patches ORAP2 through ORAP8.

3.2.3.55 Pre-Defined Reports (PDR). PDR contains the application software required to run the product. This includes the user interface software, report generation software, and Unix and SQL scripts.

3.2.3.56 Printer (PRINTER). This is the Printer software for the JMCIS COE. It provides text and graphic printing capabilities for a number of printer types.

3.2.3.57 Point-To-Point Protocol (PPP). The HP REMOTE ACCESS segment and the required PPP for HP segment are intended to run on an HP 712 with HPUX V9.0.7 operating system and GCCS COE installed. The PPP for HP segment contains installation scripts and PPP (Morning Star Technologies) software.

3.2.3.58 Requirement Development Analysis (RDA). The RDA application provides the capability to create, add, modify, delete, and generate output on deployment-related information contained in an OPLAN TPFDD. This TPFDD edit capability provides a critical tool for deliberate or peacetime planning including time sensitive or Crisis Action Planning (CAP). Functionality specifics include:

- Plan creation and maintenance
- Requirements generation and maintenance
- Availability of unit information
- Force module development and maintenance
- Availability of reference file information
- Pre-defined reports/retrieval generation.

3.2.3.59 Reference File Administration (RFA). RFA provides the capability for the System/Database Administrator to update and maintain reference file tables in the JOPES-related GCCS Core Database. The initial GCCS implementation of RFA consists of two segments: the RFA Database (RFADB) segment,

(which includes the Oracle data segment) and the RFA segment. RFA provides the ability to modify the GEOFILE, TUCHA, and TUDET reference files. The GEOFILE is updated on-line by the user entering changes. TUCHA and TUDET are updated by processing bulk transactions submitted by the community via the Joint Reporting Structure (JRS) procedures.

3.2.3.60 Reference File Manager (RFM). RFM is a TIP software package that has been incorporated into GCCS. The RFM is a tool used to download standard reference files such as ASSETS, CHSTR, TUCHA, GEOFILE, etc., from the mainframe of the GCCS server. The RFM application is initiated by operator action to download Reference Files from the WWMCCS mainframe to the various TIP applications such as DART, LOGSAFE, FAPES, and JFAST.

3.2.3.61 Navy Reserve Unit Data Resource System (RUDRS). RUDRS provides an automated means through which Commander Naval Reserve Force (COMNAVRESFOR) can provide Naval Reserve Force (NRF) unit data to Fleet Commanders-in-Chief (FLTCINCs) for reserve commissioned and reserve augmentation units to use in both deliberate and execution planning. RUDRS accepts data maintained in the COMNAVRESFOR Reserve Training Support System (RTSS) and makes that NRF data available via a database structure. It provides an automated means of updating JOPES TPFDD files with Naval Reserve data to source OPLANS. The interface provides the capability for FLTCINCs to generate Reserve augmentation requirements based on TPFDD requirements. RUDRS also requires an interface to the JOPES Geographic Location (GEOLOC) and TUCHA files for NRF data validation.

3.2.3.62 Scheduling and Movement (S&M). S&M allows improved in-transit tracking of all land, sea, and air carriers independent of OPLAN execution. It provides the ability to enter carrier data, itineraries, cargo allocations, and manifests into the database through a standard database interface. It allows users to review, edit, or create the schedules of non-cargo-capable carriers and the schedules and cargo allocations of cargo capable carriers moving by air, land, or sea, as provided by the AMC, the Military Traffic Management Command (MTMC), and the MSC.

3.2.3.63 System/Network MIB Sets. Empire Unix Systems Management Agent implements MIB-II (RFC 1213), Empire's Unix Management Information Base (MIB), and the Host Resources (RFC 1514) MIB. The Unix MIB defines groups for kernel and systems parameters, boot configuration, network, streams and I/O buffer statistics, kernel performance statistics, and an object monitoring table. The host MIB includes information on storage areas such as file systems and disk partitions, running and installed software, and the host system's devices, including the mentioned stations: keyboard, disks, and network cards. The agent enables remote Network Management Stations (NMS) to access important information such as metrics. The agent includes self-monitoring capability for exception reporting management that eliminates the need for excessive polling. The Unix Systems Agent interoperates with platforms such as SunNet Manager and others. A daemon started at boot-up handles the trap forwarding to the management station.

The HP NetMatrix product consists of two packages or partitions:

- The remote monitoring Power Agent, that implements all nine groups of the MIB (RFC 1271) plus extensions.

- The application partition, (which implements the graphical toolset) consisting of the network load monitor, the NFS monitor, the protocol analyzer, the traffic generator, and the internet work monitor.

Together, these packages assist in monitoring the performance of the site's network segments (Ethernet, FDDI, token ring, etc), and troubleshooting network problems. The host is the application server system attached to the FDDI segment at the GCCS site.

Legent System Manager is a manager/agent software application that is used to monitor the availability and performance of multi-vendor, Unix system resources distributed on a network. System Manager presents a management view of Unix system resources that conforms to the Simple Network Management Protocol (SNMP). It is designed to extend the functionality of leading network management platforms by providing a view of critical components of Unix system resources. The function of System Manager is to automatically discover, monitor, analyze, and display critical network management parameters.

3.2.3.64 Transportation Component Command External System Interface (TCCESI). TCCESI will be used for the migration of JOPES validation functionality to GCCS. The ESI provides an interface between JOPES and the software systems of the TCC for the USTRANSCOM.

3.2.3.65 Tools Command Language (TCL). TCL is a scripting language and Tk is an X-Windows interface builder. They are used extensively by the JSIT Commands Application, by JOPES Navigation Application, and possibly others.

3.2.3.66 Topics (TOPIC). This is the segmented version of the COTS product, Topic. Consult the release notes that accompany the COTS product for release information. This segment supersedes the version of this segment dated December 2, 1994.

3.2.3.67 Theater Analysis and Replanning Graphical Execution Toolkit (TARGET)/Distributed Collaborative Planning (DCP). TARGET/DCP aids the planner in all phases of crisis action planning, including Situation Assessment and Development, Course of Action (COA) Development and Selection, Execution Planning, and Execution. It facilitates simultaneous access to a distributed network of graphic planning cells sharing a common reasoning infrastructure. These tools facilitate rapid planning and COA development and analysis among the Joint Planning and Execution Community (JPEC) sites in a distributed, collaborative mode. This enables current assessment of plan generation, scheduling, and analysis processes between the Joint Staff, supported and supporting CINCs, their components and the deployed JTF.

TARGET and DCP together comprise a system of software applications and tools that can be applied to operational, crisis action planning. TARGET is designed as an object-oriented system comprised of various tools to assist in crisis planning and to stimulate user ideas and creativeness. TARGET supports:

- Operational Planning Team
- Deployment Management Team
- Logistics Readiness
- Joint Intelligence

- Supporting Commands
- Service Components.

The TARGET Workbench has a medical forms tools to plan, organize, and provide deliveries to medical teams.

TARGET and DCP are associated with the Integrated Feasibility Demonstration (IFD), and support the Advanced Research Projects Agency (ARPA) and Rome Laboratory Planning Initiative (PI).

3.2.3.68 Unified Build (UB). The UB core software for the JMCIS COE provides basic C^4I services to receive and process messages, update a track database, perform correlation and data fusion service, and display the tactical picture. This segment is now part of the GCCS Account Group aggregate segment.

3.2.3.69 Windows Distributed Desktop (WinDD). The WinDD client is installed on Sun SPARCstations and Hps. The WinDD client enables X-terminals and other X-devices to access Microsoft Windows NT applications on a WinDD application server.

3.2.3.70 External Transaction Processor (XTP). The XTP segment is designed to support transaction processing on a machine running System Services without the S&M program loaded. This requirement supports execution of other GCCS segments such as RDA.

3.3 Class I Changes Installed

There are no Class I changes affecting this scheduled release of GCCS.

3.4 Class II Changes Installed

A report of the GCCS Software Problem Reports (GSPRs) that will be created during the update from GCCS Version 2.1 to this version and not closed prior to installation will be provided in the *GCCS Implementation Procedures, Software Release Bulletin,* and *System Administration Manual*.

3.5 Adaptation Data

This paragraph is not applicable because site-specific information is addressed in scripts embedded in the software.

3.6 Interface Compatibility

This paragraph is not applicable because this is an initial release of GCCS V2.2 and requires a destructive build of the system.

3.7 Bibliography of Reference Documents

The bibliography for GCCS V2.2 is in development as of the date of this draft publication.

3.8 Summary of Change ECPs

A list of known errors and possible problems is not available for this version of the VDD.

3.9 Installation Instructions

This section lists the major steps involved in the installation of GCCS V2.2. Full details and the exact loading sequence are provided in the *GCCS Implementation Procedures, Software Release Bulletin,* and *System Administration Manual*.

a. Complete the identification of all servers and IP addresses, as contained in the GCCS Implementation Procedures.

b. Load Operating System on all GCCS platforms.

c. Set up DNS, including adding aliases to site DNS tables.

d. Load Kernel tapes.

e. Load segments in the following order:

1. Oracle memory and RDBMS.
2. If used, Oracle DB segment for S&M, then the application.
3. Application DB segments, then the applications.

f. Load NIS+.

g. Add users.

3.10 Possible Problems and Known Errors

The Summary of Change ECPs is not available for this version of the VDD.

SECTION 4. SYSTEM REQUIREMENTS

4.1 Physical Requirements for the Servers

Table 4-1. Server Physical Space Requirements

Parameter	Value
SPARCserver 1000	
Height (inches)	8.3
Width (inches)	20
Depth (inches)	21
Recommended clearance (inches) - front	12
Recommended clearance (inches) - rear	16
Recommended clearance (inches) - left	6
Recommended clearance (inches) - right	6
SCSI EXPANSION PEDESTAL	
Height (inches)	26
Width (inches)	19
Depth (inches)	29
SERVER 2000 (INCL 56" EXPANSION CABINET)	
Height (inches)	56
Width (inches)	30
Depth (inches)	39
Recommended clearance (inches) - front	48
Recommended clearance (inches) - rear	36
Recommended clearance (inches) - left	Recommended 6
Recommended clearance (inches) - right	Recommended 6

4.2 Electrical Requirements for the Servers

Table 4-2. Server Electrical Requirements

Parameter	Value
SPARCserver 1000	
Phase	1
Voltage	100-240 Volts Alternating Current (VAC) (Server & disk drive pedestal)
Max Current	9.5 amps @ 100 VAC (pedestal = 7 amps @ 115 VAC)
Max Power	650 watts (W) (pedestal = 635 W
SPARCcenter 2000 (INCL 56" EXPANSION CABINET)	
Phase	1
Voltage	100-240 Volts Alternating Current (VAC)
Max Current	3 amps @ 110 VAC 2 amps @ 220 VAC
Max Power	155 watts (529 BTU)
19 INCH COLOR MONITOR	
Phase	1
Voltage	100-240 Volts Alternating Current (VAC)
Max Current	3 amps @ 110 VAC 2 amps @ 220 VAC
Max Power	155 watts (529 BTU)

4.3 Hardware Requirements

Table 4-3. Hardware Requirements for Sun SPARCserver 1000

Received/Verified:	Item Description	Quantity	Size	Comments
	Memory	1	1 GB	C1 Configuration
		1	768 MB	C2 Configuration
		1	480 MB	C3 Configuration
	Disk	1	35.7 GB	C1 Configuration
		1	31.5 GB	C2 and C3 Configuration
	Processors	6		
	SCSI Controllers	4		
	Monitor	1		
	Keyboard	1		
	Mouse	1		
	SPARCPrinter	1		
	Tape Drive	1	8 mm	
	CD-ROM drive	1		
	Ethernet Transceiver	1		

Table 4-4. Hardware Requirements for Sun SPARCcenter 2000

Received	Item Description	Quantity	Size	Comments
	Memory	1	1.92 GB	
	Disk	1	35.7 GB	
	Processors	6		
	SCSI Controllers	4		
	Monitor	1		
	Keyboard	1		
	Mouse	1		
	SPARCPrinter	1		
	Tape Drive	1	8 mm	
	CD-ROM drive	1		
	Ethernet Transceiver	1		

Table 4-5. Hardware Requirements for SPARCstation 20

Received	Item Description	Quantity	Size	Comments
	Memory	1	224 MB	
	Disk	1	2.1 GB	Internal
		1	2.1 GB	External
	Processors	1		
	Monitor	1	20 IN	
	Keyboard	1		
	Mouse	1		
	SPARCPrinter	1		
	Tape Drive	1	8 mm	
	CD-ROM drive	1		
	Ethernet Transceiver	1		

Table 4-6. Hardware Requirements for JFAST 486 Workstation

Received	Item Description	Quantity	Size	Comments
	Memory	1	16 MB	
	Disk	1	1 GB	Internal
	Processors	1		486DX2/66
	Monitor	1	20 IN	SVGA
	Keyboard	1		
	SCSI Tape Backup	1	250 MB	Wangtek
	Tigersafe board	1		TS2K
	Ethernet Card	1		

Table 4-7. Hardware Requirements for PC X-Terminal Workstation

Received	Item Description	Quantity	Size	Comments
	Memory	1	8 MB	
	Disk	1	500 MB	
	Processors	1		486DX2/66
	Monitor	1	15/17 IN	SVGA
	Video Adapter	1	1 MB	
	Keyboard	1		
	Mouse	1		
	Ethernet Card	1		

4.4 List of Acronyms

AFSC	AirFields Remote
AHQ	Ad Hoc Query
AMC	Air Mobility Command
AMHS	Automated Message Handling System
APPLIX	Applixware Office Automation Software
ARPA	Advanced Research Projects Agency
ASET	Automated Security
ATO	Air Tasking Order
ATOCONF	Air Tasking Order Confirmation
AUTODIN	Automated Digital Network
CAP	Crisis Action Planning
CCAPPS	Command Center Applications
C^2	Command and Control
C^3I	Command, Control, Communications, and Intelligence
CESP	Civil Engineering Support Plan
CHATTER	Unix Talk
CHRONLOG	Chronological Log
CINCs	Commanders-in-Chief
CJTF	Commanders Joint Task Force
CNTRY	Country Code/Long Name File
COA	Course of Action
COE	Common Operating Environment
COLSM	Coliseum
COMNAVRESFOR	Commander Naval Reserve Force
CONTROL	System Controller
COTS	Commercial off-the-shelf
CTAPS	Contingency Theater Automated Planning System
DART	Dynamic Analysis and Replanning Tool
DB	Database
DBIF	DB Interface
DB SLCT	Select Oracle database
DICTION	Data Dictionary
DISPLAY	Custom Display
DMA	Defense Mapping Agency
DMAAC	Defense Mapping Agency Aerospace Center
DMS	Defense Message System
DNS	Domain Name Server
DoD	Department of Defense
DoDIIS	DoD Intelligence Information System
DSRS	Defense Software Repository System

DTG	Date-Time-Group
ECP	Engineering Change Proposal
ELVIS	Enhanced Linked Virtual Information System
EM	Executive Manager
ESI	External System Interface
EUCOM	European Command
EVAC	Evacuation System
FAPES	Force Augmentation Planning and Execution System
FDDI	Fiber Distribution Data Interface
FLTCINCs	Fleet Commanders-in-Chief
FRAS	Fuel Resource and Allocation System
GARC	GCCS Air Tasking Order (ATO) Review Capability
GBYTES	Gigabytes
GCCS	Global Command and Control System
GEL	Gain Extension Language
GEOFILE	Geographic Location File
GEOLOC	Geographic Location
GOTS	Government off-the-shelf
GRIS	GCCS Reconnaissance Information System
GSORTS	GCCS Status of Resources & Training System
GSPR	GCCS Software Problem Report
GTN	Global Transportation Network
GUI	Graphical User Interface
HMI	Human Machine Interface
HP	Hewlett-Packard
HTML	HyperText Markup Language
HTTPD	HyperText Transfer Protocol Daemon
IFD	Integrated Feasibility Demonstration
IMRAS	Individual Manpower Requirements and Availability System
IMS	Information Management Subsystem
IMS/RFM	Information Management Subsystem/Reference File Manager
IP	Internet Protocol
IPA	Imagery Product Archive
IRC	Internet Relay Chat
IRM	Information Resource Manager
JCS	Joint Chiefs of Staff
JDC	Joint Deployment Community
JDISS	Joint Deployable Intelligence Support System

JEPES	Joint Engineer Planning and Execution System
JFAST	Joint Flow and Analysis System for Transportation
JIC	Joint Intelligence Center
JMCIS	Joint Maritime Command Information System
JNAV	JOPES Navigation
JOPES	Joint Operations Planning and Execution System
JPEC	Joint Planning and Execution Community
JRS	Joint Reporting Structure
JS	Joint Staff
JSPS	Joint Strategic Planning System
JTF	Joint Task Force
LAN	Local Area Network
LGTO	Legato
LFF	Logistics Factors File
LOGSAFE	Logistics Sustainment Analysis and Feasibility Estimator
LSA	Logistics Sustainability Analysis
LVIS	Linked Virtual Information System
MAIL	APPLIXware Mail
MB	Mega Bytes
MEPES	Medical Planning and Execution System
MIB	Management Information Base
MM	Message Manager
MOE	Map Overlay Editor
MONITOR	System Monitor
MPM	Medical Planning Module
MSC	Military Sealift Command
MSVCS	Mail Service
MTF EDIT	Message Text Format Editor
MTMC	Military Traffic Management Command
NETEX	Network Executive
NETM	Netmetrix
NFS	Network File Server
NIS	Network Information Service
NMS	Network Management Stations
NPG	Non-Unit Personnel Generator
NRF	Naval Reserve Force
NURC	Non-Unit-Related Cargo
NEWSMKGRP	NewsMaker Group
OPLAN	Operation Plan

PACOM	Pacific Command
PC	Personal Computer
PDR	Pre-Defined Reports
PHONE	Telephone List
PI	Planning Initiative
PLOG	Position Log
POSF	Ports of Support File
PPP	Point-to-Point Protocol
PROFILES	Profiles Function
RDA	Requirements Development and Analysis
RDBMS	Relational Database Management System
RDP	Rapid Deployment Planning
RFADB	Reference File Administration Data Base
RFM	Reference File Manager
RFA	Reference File Administration
RIPS	Reconnaissance Information Processing System
RREM	Run Remote
RTSS	Reserve Training Support System
RUDRS	Reserve Unit Data Resource System
S&M	Scheduling and Movement
SECURITY	Security Manager
SIPRNET	Secret Internet Protocol Router Network
SIQS	SORTS Interactive Query System
SNMP	Simple Network Management Protocol
SORTS	Status of Resources & Training System
SQL	Structured Query Language
SRB	Software Release Bulletin
SRO	Sensitive Reconnaissance Operations
TARGET/DCP	Theater Analysis and Replanning Graphical Execution Toolkit/Distributed Collaborative Planning
TCC	Transportation Component Command
TCCESI	Transportation Component Command External System Interface
TCP/IP	Transmission Control Protocol/Internet Protocol
TEDIT	Template Editor
TPFDD	Time-Phased Force Deployment Data
TIP	Technology Insertion Program
TUCHA	Type Unit Characteristics File
UB	Unified Build
USMTF	United States Message Text Format
USTRANSCOM	United States Tranportation Command

VDD	Version Description Document
WAN	Wide Area Network
WinDD	Windows Distributed Desktop
WIS	WWMCCS Information System
WWMCCS	Worldwide Military Command and Control System
WWS	WIS Workstation
XTERM	X-Terminal
XTP	External Transaction Processor
XRN	NewsGroups-X-Windows Read News